

## REMARKS

Support for the amendments to the claims can be found at least at the following locations in the specification: page 33, line 7 *et seq.*, and page 26, lines 1-4.

The disclosure has been objected to for including a reference to a trademark which is not capitalized and accompanied by the appropriate trademark symbol. The specification has been amended to refer to the trademark in question as “SEPHADEX® G25”. Reconsideration and withdrawal of this objection to the disclosure is therefore respectfully requested.

The disclosure has also been objected to for containing an embedded hyperlink and other forms of browser executable code. The embedded hyperlink and the other forms of browser executable code have been deleted from the specification. Reconsideration and withdrawal of this objection to the disclosure is therefore respectfully requested.

Claims 13 and 14 have been rejected under 35 U.S.C. §112, first paragraph on written description and enablement grounds. These rejections are respectfully traversed.

This rejection is apparently based on the open ended claim language used to define the peptide in the claims. In particular, the claims as originally presented encompass peptide sequences which are not T cell epitopes. Although Applicants do not agree in substance with this rejection, in order to expedite prosecution Claims 13 and 14 have been amended without prejudice or disclaimer to recite a conjugate comprising a polypeptide *consisting of* a T cell epitope. As amended, the polypeptides recited in these claims do not have additional sequences which are not a T cell epitope.

The Official Action also appears to be objecting to the recitation in Claim 13 that the T cell epitope is defined by a sequence of at least about eight amino acids of said antigen. This phrase has been deleted from Claim 13. Accordingly, reconsideration and withdrawal of these rejections is therefore respectfully requested.

Claims 13 and 14 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by International Publication No. WO 00/12122 to Simon et al. (hereinafter referred to as “Simon”). This rejection is respectfully traversed

According to the Official Action, Simon discloses “T cell epitope peptides . . . covalently coupled to hyaluronic acid polymers.” Simon, however, discloses the use of *low-molecular weight hyaluronic acid fragments* (See Abstract of Simon). In fact, Simon specifically discloses the use of hyaluronic acid fragments having 1 to 50 repeating units (page 6, 2<sup>nd</sup> full paragraph and paragraph bridging pages 9 and 10 of Simon). An HA fragment having 50 repeating units has a molecular weight of approximately 20,000 daltons. In contrast, Claims 13 and 14 recite that the hyaluronic acid polymer analogue has a molecular weight of at least 50,000 daltons. The Official Action has pointed to no teaching or suggestion in Simon of a composition as set forth in Claims 13 and 14 wherein the hyaluronic acid polymer analogue has a molecular weight of at least 50,000. Accordingly, it is respectfully submitted that Claims 13 and 14 are patentable over Simon. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 13 and 14 have been rejected under 35 U.S.C. §102(a) as allegedly being anticipated by U.S. Patent No. 6,063,370 to Dadey (hereinafter referred to as “Dadey”). This rejection is respectfully traversed.

According to the Official Action, Dadey discloses “insulin or other proteins or peptides covalently linked to linear polymers such as polymers of hyaluronic acid . . .” (page 7 of the Official Action). This is a mischaracterization of the Dadey reference. In particular, Dadey discloses *complexes* of a drug and a polymer having a plurality of acid moieties (Abstract of Dadey). Dadey is clearly directed to *ionic* complexes of the drug and the polymer and not to covalently linked conjugates (See, for example, column 6, line 48 *et seq.* of Dadey). In fact, the Official Action has pointed to no teaching or suggestion in Dadey of a covalently linked

structure. Accordingly, it is respectfully submitted that Claims 13 and 14 are patentable over Dadey.

Claims 13 and 14 can be further distinguished from Dadey. In particular, the Official Action states that “it is an inherent property of insulin that it *comprises* T cell epitopes . . .” (emphasis added, page 7 of the Official Action). Claims 13 and 14, however, recite that the conjugate comprises a polypeptide *consisting* of a T cell epitope wherein the T cell epitope is recognized by an MHC molecule of said mammal. It is respectfully submitted that insulin is not a polypeptide *consisting of* a T cell epitope. In particular, insulin includes sequences that are not a T cell epitope. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 13 and 14 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,993,819 to Haynes et al. (hereinafter referred to as “Haynes”) in view of Termeer et al., J. Immunol. 2000, 165:1863-1870 (hereinafter referred to as “Termeer”), U.S. Patent No. 4,141,973 to Balazs (hereinafter referred to as “Balazs”), U.S. Patent No. 6,150,461 to Takei et al. (hereinafter referred to as “Takei”) and alleged admissions in the specification. This rejection is respectfully traversed.

According to the Official Action, Haynes “T cell epitope peptides covalently linked to carriers” (page 7 of the Official Action). As acknowledged in the Official Action, however, Haynes fails to disclose “T cell epitope peptides . . . linked to hyaluronic acid polymers” (page 7 of the Official Action). In order to remedy this acknowledged deficiency of Haynes, the Official Action relies upon a teaching in Termeer that “hyaluronic acid polymers are potent activators of dendritic cells” (page 7 of the Official Action). Termeer, however, discloses that “[o]nly small HA fragments of tetra- and hexasaccharide size (sHA) . . . induced immunophenotypic maturation of human monocyte-derived [dendritic cells]” (Abstract of Termeer). See also page

1868, right hand column of Termeer which states that “only small HA or 4- to 16-oligosaccharide size . . . induce DC maturation”. A 16-oligosaccharide HA has a molecular weight of less than 5,000 daltons. In contrast, Claims 13 and 14 recite that the hyaluronic acid polymer analogue has a molecular weight of at least 50,000 daltons. As set forth in the MPEP, a reference must be considered in its entirety including disclosures that would lead away from the claimed invention. MPEP §2141.02. It is respectfully submitted that the Official Action has pointed to no teaching in Termeer which would lead one of ordinary skill in the art to modify Haynes to arrive at the invention as set forth in Claims 13 and 14.

The additional references cited in the Official Action in support of the rejection also fail to remedy the acknowledged deficiencies of Haynes. In particular, Balazs is merely being relied upon for the disclosure of “ultra-pure hyaluronic acid polymers” and Takei is merely being relied upon for the disclosure that “hyaluronic acid polymers can be covalently attached via peptide linkage . . . to poly-L-Lysine . . .” (pages 7-8 of the Official Action).

Claims 15-21 have been added. These claims depend from Claims 13 and are therefore patentable over the cited references for at least the reasons set forth above with respect to Claim 13.

The Official Action refers to an alleged admission on page 18, lines 19-20 of the Specification. In particular, the Official Action has stated that this portion of the specification is an admission that “one type of hyaluronic acid suitable for the disclosed invention is that of U.S. Patent No. 6,150,461” (page 8 of the Official Action). First, it appears that the patent the Official Action is referring to is actually U.S. Patent No. 4,141,973, which is referenced at page 18, line 20 of the specification. Second, it is respectfully submitted that the sentence referred to in the specification is not in fact an admission that this particular type hyaluronic acid is suitable for the disclosed invention. Rather, this sentence merely refers a specific disclosure in U.S. Patent

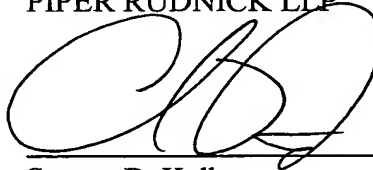
No. 4,725,585 (hereinafter referred to as "the '585 patent") which references U.S. Patent No. 4,141,973 (column 2, lines 3-8 of the '585 patent). Moreover, the paragraph in which this sentence appears in the Specification is merely a description of what is disclosed in the '585 patent.

### **CONCLUSION**

Applicants submit that this application is now in condition for allowance and therefore request favorable consideration. If any issues remain which the Examiner feels may be best resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact Applicants' counsel, Christopher W. Raimund at (202) 861-3896.

Respectfully submitted,

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